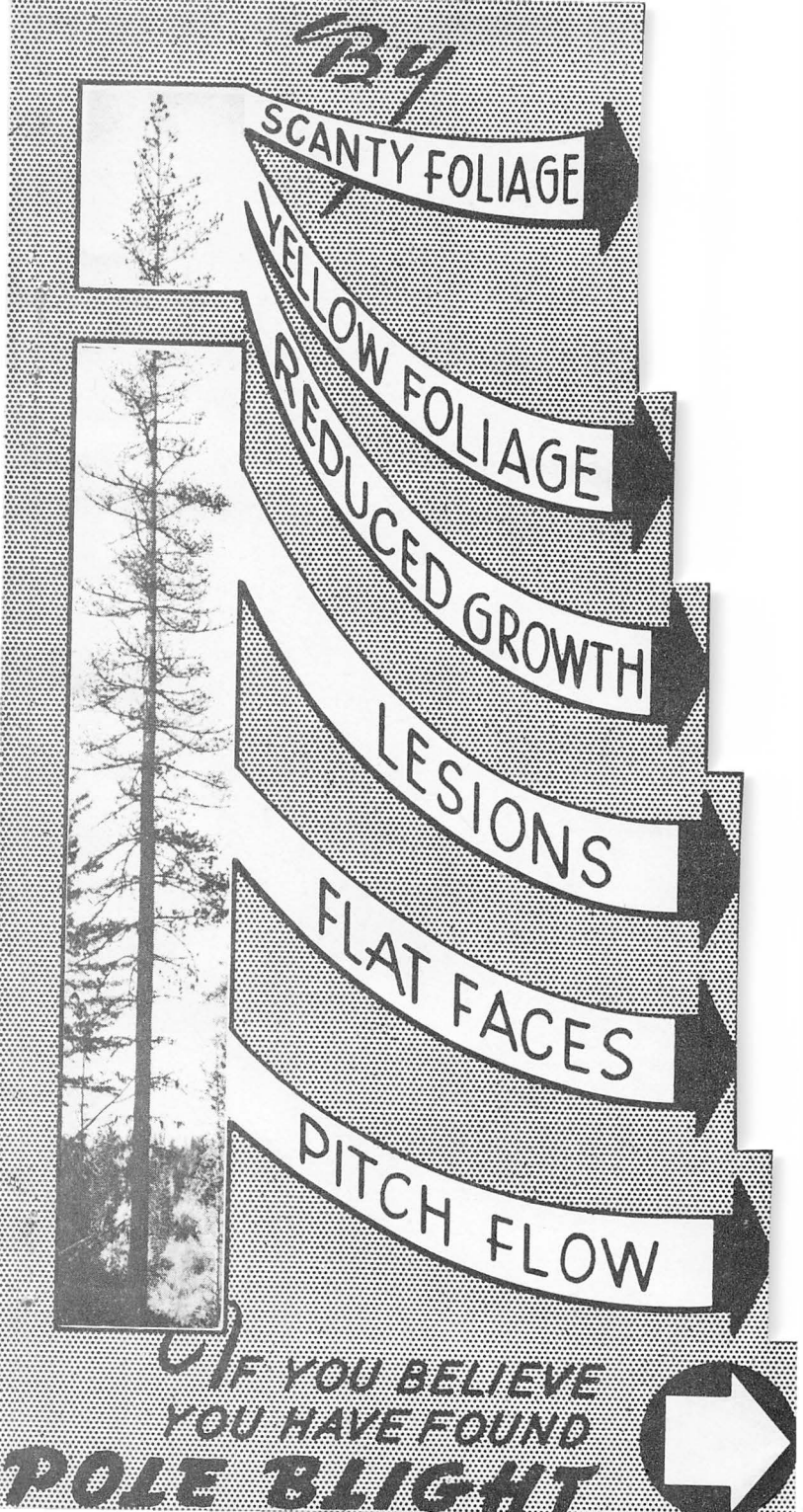
File: D-5231.A21 (13, B-1)

This is how to Recognize it


BY
SCANTY FOLIAGE
YELLOW FOLIAGE
REDUCED GROWTH
LESIONS
FLAT FACES
PITCH FLOW
IF YOU BELIEVE
YOU HAVE FOUND
POLE BLIGHT

SCANTY FOLIAGE

JUDGE ONLY DOMINANT OR CODOMINANT TREES

Upper crown foliage very sparse. Length of twig over which needles are carried reduced to short tufts of foliage near the branch ends. Needles themselves reduced in length. Especially true of main terminal and of uppermost 5-6 branch whorls.

Normal healthy pines generally have more than 22 inches of needle-bearing stem on the leader and more than 7 inches on upper crown branches. Less than this is cause for suspicion.

Healthy pine needles generally 3 inches or more in length. Severe pole blight may reduce this length to as little as $1\frac{1}{2}$ inches.

YELLOW FOLIAGE

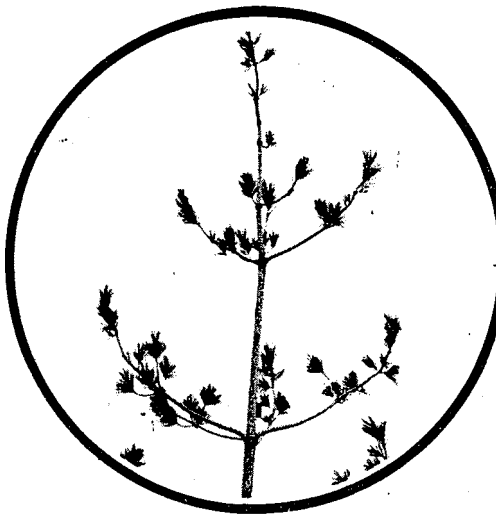
A relative factor only - and again best determined by examination of upper crown of dominant and codominant trees.

Needle color of healthy pines a deep green. Pole blight causes the tops to fade first to a yellowish-green and even to a pronounced yellowish color. Base of crown may still be normal green. By the time tree dies and foliage turns reddish-brown, very few needles are left in the upper crown of pole blight-killed trees.

Beetle-killed pines have full complement of reddened needles when tree first dies.

Blister rust stem cankers sometimes will cause yellowed tops. Check to be sure this is not the cause of the trouble.

REDUCED GROWTH



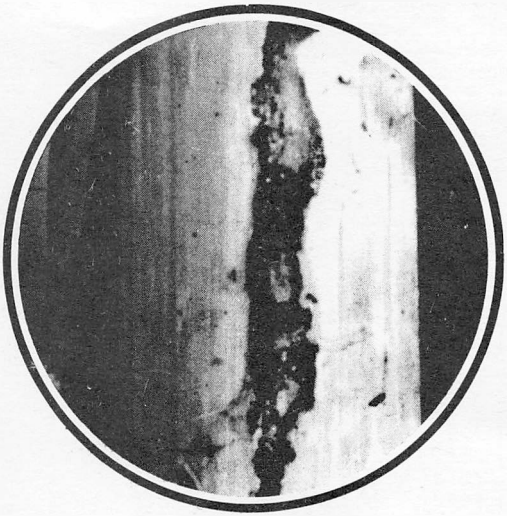
JUDGE ONLY DOMINANT OR CODOMINANT TREES

Effects of pole blight first reflected in reduced height growth of the tree. Length of internodes, (distance between branch whorls, see photo) on main leader averages 15 inches or more per year for the most recent 5-year period on healthy trees. Anything less may indicate pole blight - 9 inches or less severe pole blight.

Length of internodes on lateral branches are shortened by pole blight. Averages 5 inches or more on uppermost whorls of healthy trees. Pole blight may reduce this to 2 inches or less.

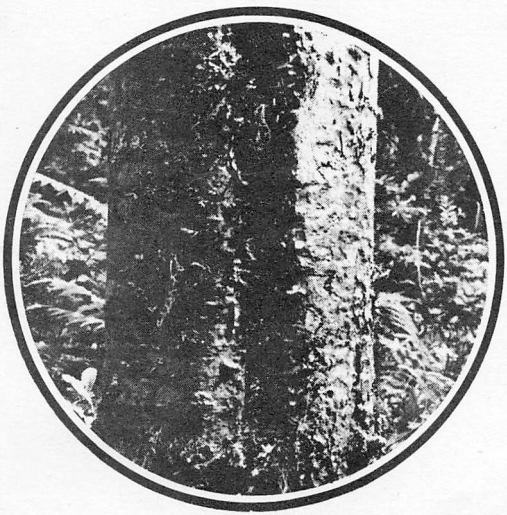
This factor is simply an expression of tree vigor. Therefore, do not judge intermediate or suppressed trees or trees in poor vigor from obvious causes.

LESIONS



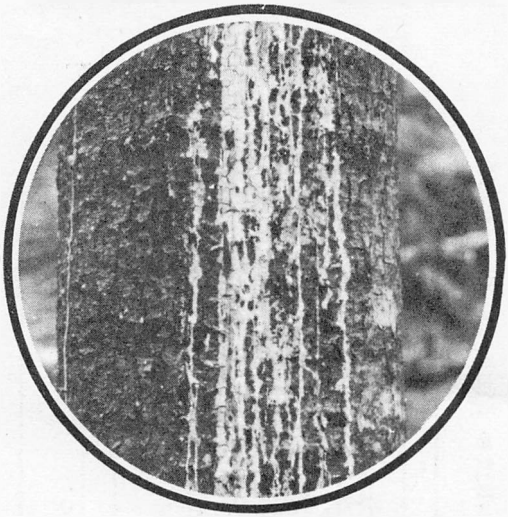
Long, narrow areas of dead cambium on main stem. Overlying bark may be cracked and sloughing. Most reliable single indicator of pole blight. Do not confuse with wounds caused by sunscald or falling trees. Stem in above photo peeled to show lesion.

FLAT FACES



Related to above. Bole flattened because of locally retarded or stopped cambial growth. Do not confuse with natural flattening immediately above root collar.

PITCH FLOW



May or may not be related to lesions and flat faces. A very strong symptom if not accountable by other obvious reasons.

Do not confuse with pitch resulting from blister rust cankers, beetle damage, or mechanical injuries. Do not consider flow originating at branch stubs.

If not of obvious cause and originating between nodes, a strong indicator.

* * * * * * * * *

Any one previous symptom is cause for suspicion. Two or more in combination more positive.

A single suspicious tree in the stand is not a very positive indication. When one suspicious tree is found, look for others. Several trees showing strong pole blight symptoms are required for positive indication of pole blight in any given stand.

REPORT OF SUSPECTED POLE BLIGHT AREA

A new location for pole blight of western white pine is believed to be as follows: Nat. Forest or County _____

Drainage or other landmark _____

Land Survey Location _____ 1/4 Sec. _____ T _____ R _____

Approximate area affected _____ acres or _____ trees

Disease appears to be (1) recent, no dead trees noted _____

(Check one) (2) well established, dead trees present _____

Estimated composition: WWP ___ % DF ___ % WRC ___ % Hemlock ___ %

WWP in diseased stand is about age _____, dbh _____, ht. _____

Reported by _____ Title _____

Address _____

Send _____ copies of this report form to:

Name: _____ Address _____

POLE BLIGHT is a disease of pole-size western white pine trees. Its cause is as yet unknown. Forest stands on an estimated 100,000 acres in northern Idaho, western Montana, and northeastern Washington are damaged to some degree. If pole blight continues to spread, its damage will seriously impair white pine production.

This booklet is to inform people of pole blight symptoms so that they will be on the lookout for the disease and help complete the record of its occurrence and spread by reporting suspected cases.

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Prepared as a cooperative undertaking by:

University of Idaho, School of Forestry

The Division of Forest Pathology, Bureau of Plant Industry, Soils and Agricultural Engineering, U. S. Dept. of Agriculture

Northern Rocky Mountain Forest and Range Experiment Station of the Forest Service, U. S. Dept. of Agriculture

December, 1949

Your discovery is important. Various people concerned with the disease will want to know about it. A franked postcard, "Report of Suspected Pole Blight Area", similar to the form shown on the opposite page, can be obtained from the Division of Forest Pathology, c/o U. S. Forest Service, Federal Building, Missoula, Montana. Please fill out as much of the requested information as possible. Your cooperation will be appreciated.

Agriculture — Missoula